Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method of making a high softening point coal tar pitch using high efficiency evaporative distillation, comprising the steps of:

feeding a feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and

withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to 180°C ~~300°C~~ and having less than 5% mesophase content.

2. (canceled)

3. (original) A method according to claim 1, said output coal tar pitch having less than 1% mesophase content.

4. (original) A method according to claim 1, said feed coal tax pitch having a softening point in the range of 110°C to 140°C.

5. (original) A method according to claim 1, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

6. (canceled)

7. (original) A method according to claim 1, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

8. (original) A method according to claim 7, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

9. (original) A method according to claim 7, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

10. (original) A method according to claim 8, wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 1 to 60 seconds.

11. (original) A method according to claim 9, wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 5 to 30 seconds.

12. (original) A method according to claim 7, wherein said wiped film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

13. (original) A method according to claim 1, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

14. (original) A method according to claim 13, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

15. (original) A method according to claim 13, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

16. (original) A method according to claim 14, wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 1 to 60 seconds.

17. (original) A method according to claim 15, wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 5 to 30 seconds.

18. (original) A method according to claim 13, wherein said thin film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said feed coal tar pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

19. (currently amended) A method according to claim 1, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel~~, said output coal tar pitch having a softening point in the range of 140° to 180°C~~.

20. (currently amended) A method of making a pitch using high efficiency evaporative distillation, comprising the steps of: feeding a feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to <u>180°C</u> ~~300°C~~ and having less than 5% mesophase content; and combining said output coal tar pitch with a plasticizer.

21. (original) A method according to claim 20, wherein said plasticizer comprises a coal tar having a viscosity in the range of 2 to 5 centistokes at 210°F and a B(a)P equivalent of no more than 500 ppm B(a)P.

22. (original) A method according to claim 21, wherein said plasticizer comprises a mixture of said coal tar and a petroleum oil, said petroleum oil constituting 30% to 60% of said mixture.

23. (original) A method according to claim 20, said feeding step comprising introducing said coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

24. (original) A method according to claim 20, said feeding step comprising introducing said coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

25. (original) A method according to claim 20, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel, said output feed coal tar pitch having a softening point in the range of 140°C to 180°C.

26. (canceled)

27. (original) A method according to claim 20, said feed coal tar pitch having a softening point in the range of 110°C to 140°C.

28. (original) A method according to claim 20, wherein said processing vessel is heated to a temperature in the range of 350°C and 500°C.

29. (original) A method of making a quinoline insoluble-free and ash-free coal tar pitch having a desired softening point, comprising the steps of: feeding a feed coal tar pitch having an initial softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; obtaining a distillate from said processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; heat treating said distillate at a temperature in the range of 350°C to 595°C for between five minutes and forty hours; and distilling the heat treated distillate to obtain a pitch having the desired softening point.

30. (original) A method according to claim 29, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

31. (original) A method according to claim 29, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

32. (original) A method according to claim 29, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

33. (original) A method according to claim 29, wherein said heat treated distillate has a softening point in the range of 60°C to 110°C.

34. (original) A method of making a mesophase coal tar pitch, comprising of the steps of: feeding a feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said

processing vessel is 5 Torr or less; obtaining a distillate from said processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; and heat treating said distillate at a temperature in the range of 370°C to 595°C for between three and forty hours.

35. (original) A method according to claim 34, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

36. (original) A method according to claim 34, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

37. (original) A method according to claim 34, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

38. (original) A method of making a quinoline insoluble-free and ash-free coal tar pitch, comprising of the steps of: feeding a feed coal tar pitch having a softening point in the range of 70°C to 160°C into a first processing vessel, wherein said first processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said first processing vessel is 5 Torr or less; obtaining a distillate from said first processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; heat treating said distillate at a temperature in the range of 350°C to 595°C for between five minutes and forty hours; distilling the heat treated distillate to obtain a pitch having a desired softening point; feeding said pitch having a desired softening point into a second processing vessel, wherein said second processing vessel is heated to a temperature in the range of 300°C to 600°C; and withdrawing an output coal tar pitch from said second processing vessel.

39. (original) A method according-to claim 38, wherein said first processing vessel and said second processing vessel are the same vessel.

40. (original) A method according to claim 39, wherein said first and second processing vessel is a wiped film evaporator.

41. (original) A method according to claim 38, wherein said first processing vessel comprises a wiped film evaporator.

42. (original) A method according to claim 38, wherein said second processing vessel comprises a wiped film evaporator.

43. (original) A method according to claim 39, wherein said first and second processing vessel is a thin film evaporator.

44. (original) A method according to claim 38, wherein said first processing vessel comprises a thin film evaporator.

45. (original) A method according to claim 38, wherein said second processing vessel comprises a thin film evaporator.

46. (original) A method according to claim 39, wherein said first and second processing vessel are comprised of a conventional distillation apparatus.

47. (original) A method according to claim 38, wherein said first processing vessel further comprises a conventional distillation apparatus.

48. (original) A method according to claim 38, wherein said second processing vessel further comprises a conventional distillation apparatus.

49. (currently amended) A method of making a high softening point hydrocarbon mixture pitch using high efficiency evaporative distillation, comprising the steps of: feeding a feed hydrocarbon mixture pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and withdrawing an output hydrocarbon mixture pitch from said processing vessel, said output hydrocarbon mixture pitch having a softening point in the range of 140°C to 180°C ~~300°C~~ and having less than 5% mesophase content.

50. (canceled)

51. (original) A method according to claim 49, said output hydrocarbon mixture pitch having less than 1% mesophase content.

52. (original) A method according to claim 49, said feed hydrocarbon mixture pitch having a softening point in the range of 110°C to 140°C.

53. (original) A method according to claim 49, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

54. (canceled)

55. (original) A method according to claim 49, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

56. (original) A method according to claim 55, wherein a feed rate of said feed hydrocarbon mixture pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

57. (original) A method according to claim 55, wherein a feed rate of said feed hydrocarbon mixture pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

58. (original) A method according to claim 56, wherein a residence time of said feed hydrocarbon mixture pitch in said processing vessel is in the range of 1 to 60 seconds.

59. (original) A method according to claim 57, wherein a residence time of said feed hydrocarbon mixture pitch in said processing vessel is in the range of 5 to 30 seconds.

60. (original) A method according to claim 55, wherein said wiped film evaporator forms a film of said feed hydrocarbon mixture pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

61. (original) A method according to claim 49, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

62. (original) A method according to claim 61, wherein a feed rate of said feed hydrocarbon mixture pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

63. (original) A method according to claim 61, wherein a feed rate of said feed hydrocarbon mixture pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

64. (original) A method according to claim 62, wherein a residence time of said feed hydrocarbon mixture pitch in said processing vessel is in the range of 1 to 60 seconds.

65. (original) A method according to claim 63, wherein a residence time of said feed hydrocarbon mixture pitch in said processing vessel is in the range of 5 to 30 seconds.

66. (original) A method according to claim 61, wherein said thin film evaporator forms a film of said feed hydrocarbon mixture pitch on an interior wall of said processing vessel, said feed hydrocarbon mixture pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

67. (original) A method according to claim 49, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

68. (original) A method according to claim 49, said feed hydrocarbon mixture pitch comprising a mixture of coal tar pitch and petroleum pitch.

69. (original) A method according to claim 68, said feed hydrocarbon mixture pitch comprising at least 50% coal tar pitch.

70. (currently amended) A method of making a pitch using high efficiency evaporative distillation, comprising the steps of: feeding a feed hydrocarbon mixture pitch having a softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or

less; withdrawing an output hydrocarbon mixture pitch from said processing vessel, said output hydrocarbon mixture pitch having a softening point in the range of 140°C to 180°C ~~300°C~~ and having less than 5% mesophase content; and combining said output hydrocarbon mixture pitch with a plasticizer.

71. (original) A method according to claim 70, wherein said plasticizer comprises a coal tar having a viscosity in the range of 2 to 5 centistokes at 210°F and a B(a)P equivalent of no more than 500 ppm B(a)P.

72. (original) A method according to claim 71, wherein said plasticizer comprises a mixture of said coal tar and a petroleum oil, said petroleum oil constituting 30% to 60% of said mixture.

73. (original) A method according to claim 70, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

74. (original) A method according to claim 70, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

75. (original) A method according to claim 70, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

76. (canceled)

77. (original) A method according to claim 70, said feed hydrocarbon mixture pitch having a softening point in the range of 110°C to 140°C.

78. (original) A method according to claim 70, wherein said processing vessel is heated to a temperature in the range of 350°C and 500°C.

79. (original) A method according to claim 70, said feed hydrocarbon mixture pitch comprising a mixture of coal tar pitch and petroleum pitch.

80. (original) A method according to claim 79, said feed hydrocarbon mixture pitch comprising at least 50% coal tar pitch.

81. (original) A method of making a quinoline insoluble-free and ash-free hydrocarbon mixture pitch having a desired softening point, comprising the steps of: feeding a feed hydrocarbon mixture pitch having an initial softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; obtaining a distillate from said processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; heat treating said distillate at a temperature in the range of 350°C to 595°C for between five minutes and forty hours; and distilling the heat treated distillate to obtain a pitch having the desired softening point.

82. (original) A method according to claim 81, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

83. (original) A method according to claim 81, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

84. (original) A method according to claim 81, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

85. (original) A method according to claim 81, wherein said heat treated distillate has a softening point in the range of 60°C to 110°C.

86. (original) A method according to claim 81, said feed hydrocarbon mixture pitch comprising a mixture of coal tar pitch and petroleum pitch.

87. (original) A method according to claim 86, said feed hydrocarbon mixture pitch comprising at least 50% coal tar pitch.

88. (original) A method of making a mesophase hydrocarbon mixture pitch, comprising of the steps of: feeding a feed hydrocarbon mixture pitch having a softening point in the range of 70°C to 160°C into a processing vessel, wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; obtaining a distillate from said processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; and heat treating said distillate at a temperature in the range of 370°C to 595°C for between three and forty hours.

89. (original) A method according to claim 88, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

90. (original) A method according to claim 88, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

91. (original) A method according to claim 88, said feeding step comprising introducing said feed hydrocarbon mixture pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

92. (original) A method according to claim 88, said feed hydrocarbon mixture pitch comprising a mixture of coal tar pitch and petroleum pitch.

93. (original) A method according to claim 92, said feed hydrocarbon mixture pitch comprising at least 50% coal tar pitch.

94. (original) A method of making a quinoline insoluble-free and ash-free hydrocarbon mixture pitch, comprising of the steps of: feeding a feed hydrocarbon mixture pitch having a softening point in the range of 70°C to 160°C into a first processing vessel, wherein said first processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said first processing vessel is 5 Torr or less; obtaining a distillate from said first processing vessel, said distillate having a softening point in the range of 25°C to 60°C and being quinoline insoluble-free and ash-free; heat treating said distillate at a temperature in the range of 350°C to 595°C for between five minutes and forty hours; distilling the heat treated distillate to obtain a pitch having a desired softening point; feeding said pitch having a desired softening point into a second processing vessel, wherein said second processing vessel is heated to a temperature in the range of 300°C to 600°C; and withdrawing an output hydrocarbon mixture pitch from said second processing vessel.

95. (original) A method according to claim 94, wherein said first processing vessel and said second processing vessel are the same vessel.

96. (original) A method according to claim 95, wherein said first and second processing vessel is a wiped film evaporator.

97. (original) A method according to claim 94, wherein said first processing vessel comprises a wiped film evaporator.

98. (original) A method according to claim 94, wherein said second processing vessel comprises a wiped film evaporator.

99. (original) A method according to claim 95, wherein said first and second processing vessel is a thin film evaporator.

100. (original) A method according to claim 94, wherein said first processing vessel comprises a thin film evaporator.

101. (original) A method according to claim 94, wherein said second processing vessel comprises a thin film evaporator.

102. (original) A method according to claim 95, wherein said first and second processing vessel are comprised of a conventional distillation apparatus.

103. (original) A method according to claim 94, wherein said first processing vessel further comprises a conventional distillation apparatus.

104. (original) A method according to claim 94, wherein said second processing vessel further comprises a conventional distillation apparatus.

105. (original) A method according to claim 94, said feed hydrocarbon mixture pitch comprising a mixture of coal tar pitch and petroleum pitch.

106. (original) A method according to claim 105, said feed hydrocarbon mixture pitch comprising at least 50% coal tar pitch.

107. (new) A method of making a high softening point coal tar pitch using high efficiency evaporative distillation, comprising the steps of:

feeding a commercial stock feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and

withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to 300°C and having less than 5% mesophase content;

wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 1 to 60 seconds.

108. (new) A method according to claim 107, said output coal tar pitch having a softening point in the range of 150°C to 250°C

109. (new) A method according to claim 107, said output coal tar pitch having less than 1% mesophase content.

110. (new) A method according to claim 107, said feed coal tax pitch having a softening point in the range of 110°C to 140°C.

111. (new) A method according to claim 107, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

112. (new) A method according to claim 107, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

113. (new) A method according to claim 107, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

114. (new) A method according to claim 107, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

115. (new) A method according to claim 112, wherein said wiped film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

116. (new) A method according to claim 107, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

117. (new) A method according to claim 116, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

118. (new) A method according to claim 116, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

119. (new) A method according to claim 116, wherein said thin film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said feed coal tar pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

120. (new) A method according to claim 107, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

121. (new) A method of making a high softening point coal tar pitch using high efficiency evaporative distillation, comprising the steps of:

feeding a commercial stock feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and

withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to 300°C and having less than 5% mesophase content;

wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 5 to 30 seconds.

122. (new) A method according to claim 121, said output coal tar pitch having a softening point in the range of 150°C to 250°C

123. (new) A method according to claim 121, said output coal tar pitch having less than 1% mesophase content.

124. (new) A method according to claim 121, said feed coal tax pitch having a softening point in the range of 110°C to 140°C.

125. (new) A method according to claim 121, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

126. (new) A method according to claim 121, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

127. (new) A method according to claim 121, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

128. (new) A method according to claim 121, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

129. (new) A method according to claim 125, wherein said wiped film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

130. (new) A method according to claim 121, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

131. (new) A method according to claim 130, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

132. (new) A method according to claim 130, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

133. (new) A method according to claim 130, wherein said thin film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said feed coal tar pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

134. (new) A method according to claim 121, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

135. (new) A method of making a high softening point coal tar pitch using high efficiency evaporative distillation, comprising the steps of:

feeding an unfiltered feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and

withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to 300°C and having less than 5% mesophase content;

wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 1 to 60 seconds.

136. (new) A method according to claim 135, said output coal tar pitch having a softening point in the range of 150°C to 250°C

137. (new) A method according to claim 135, said output coal tar pitch having less than 1% mesophase content.

138. (new) A method according to claim 135, said feed coal tax pitch having a softening point in the range of 110°C to 140°C.

139. (new) A method according to claim 135, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

140. (new) A method according to claim 135, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

141. (new) A method according to claim 135, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

142. (new) A method according to claim 135, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

143. (new) A method according to claim 140, wherein said wiped film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

144. (new) A method according to claim 135, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

145. (new) A method according to claim 144, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

146. (new) A method according to claim 144, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

147. (new) A method according to claim 144, wherein said thin film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said feed coal tar pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

148. (new) A method according to claim 135, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.

149. (new) A method of making a high softening point coal tar pitch using high efficiency evaporative distillation, comprising the steps of:

feeding an unfiltered feed coal tar pitch having a softening point in the range of 70°C to 160°C into a processing vessel wherein said processing vessel is heated to a temperature in the range of 300°C to 600°C and wherein a pressure inside said processing vessel is 5 Torr or less; and

withdrawing an output coal tar pitch from said processing vessel, said output coal tar pitch having a softening point in the range of 140°C to 300°C and having less than 5% mesophase content;

wherein a residence time of said feed coal tar pitch in said processing vessel is in the range of 5 to 30 seconds.

150. (new) A method according to claim 149, said output coal tar pitch having a softening point in the range of 150°C to 250°C

151. (new) A method according to claim 149, said output coal tar pitch having less than 1% mesophase content.

152. (new) A method according to claim 149, said feed coal tax pitch having a softening point in the range of 110°C to 140°C.

153. (new) A method according to claim 149, wherein said processing vessel is heated to a temperature in the range of 350°C to 500°C.

154. (new) A method according to claim 149, said feeding step comprising introducing said feed coal tar pitch into a wiped film evaporator, said wiped film evaporator comprising said processing vessel.

155. (new) A method according to claim 149, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

156. (new) A method according to claim 149, wherein a feed rate of said feed coal tar pitch into said wiped film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

157. (new) A method according to claim 154, wherein said wiped film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said film having a minimum thickness of 1 millimeter.

158. (new) A method according to claim 149, said feeding step comprising introducing said feed coal tar pitch into a thin film evaporator, said thin film evaporator comprising said processing vessel.

159. (new) A method according to claim 158, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 10 to 100 pounds/square foot of surface area/hour.

160. (new) A method according to claim 158, wherein a feed rate of said feed coal tar pitch into said thin film evaporator is in the range of 35 to 50 pounds/square foot of surface area/hour.

161. (new) A method according to claim 158, wherein said thin film evaporator forms a film of said feed coal tar pitch on an interior wall of said processing vessel, said feed coal tar pitch comprising a plurality of QI particles, said film having a minimum thickness that is no smaller than a thickness of a largest one of said QI particles.

162. (new) A method according to claim 149, said feeding step comprising introducing said feed coal tar pitch into a conventional distillation apparatus, said conventional distillation apparatus comprising said processing vessel.